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POTATOES

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THE OHIO STATE UNIVERSITY
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RESULTS OF A FIVE-YEAR PROGRAM FOR EVALUATING NEW VARIETIES OF POTATOES FOR CHIPPING

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INTRODUCTION

Variety selection by a grower is one of the most important aspects of his production program each year. The selection of the variety or varieties should be based not only on yield and adaptability to his area of production, but, more importantly, on the market acceptance of the variety. This is determined more and more by the processor's use of the growers efforts. The processor can make certain adjustments during production to off-set inferior raw product attributes, but he knows his biggest single variable is the raw product. Without question, the variety is the first emphasis when considering the raw material. Therefore, when one considers research in this area, he must look at the variety problem from the view of both the grower or producer, and the processor. This may be a topic for arbitration, but it appears that the processor's use of the grower's product should influence the researcher in potato breeding and development of new processing practices.

METHODS

Although this study has been conducted for the past several years, this presentation will cover only data collected during the past five years due to the constant development of new varieties.

Each year up to twelve varieties were replicated twice on each of four to seven farms located throughout the state of Ohio. Planting data ranged from early April to late June depending on the year. The seed in most cases was cut just before planting and was treated with Captan. Yield records were made on all plots.

Each grower employed his usual farm practices for fertilization, cultivation and spraying. Some of the growers had irrigation systems and used them when applicable.

Potatoes were graded immediately after harvest with 25 lb. samples from each plot removed for processing. These lots were delivered as promptly as possible (no more than one week elapsed between harvest and processing during the years) to The Ohio State University pilot processing lab. Upon receipt at the processing laboratory, an eight pound sample was removed from each lot for specific gravity measurement (NPCII Hydrometer Method) and the number of tubers per eight pounds was recorded.

The 25 lb. sample was sub-sampled with three pounds removed for immediate manufacture into chips and the rest was placed in 55° storage. Following a three month storage period the lots were removed from storage, and a three pound sample was manufactured into chips at intervals of 1, 10, and 20 days (20 day intervals were used only in 1964 and 1965) following holding for reconditioning at 70° F. temperatures.

The chips were manufactured after first being peeled in an abrasive peeler for 30 seconds, sliced in a Littrell slicer set for 18 slices per inch, and washed in cold water. Two - 1 pound samples were removed (no slivers or small pieces were used). The lots were fried in peanut oil (the free fatty acid did not exceed 0.5%) using The Ohio State University continuous chip fryer. For these studies the inlet temperature was held at 375° F. with the discharge temperature at 355° F. The fry time varied from 45 to 55 seconds depending on the specific gravity of the chips an indicated by finished chip moisture content, which did not exceed 2½%.

Following frying, the yield of chips was recorded, the samples were matched to the NCPII Coughlin Color chart in a MacBeth Examolite. A sub-sample of each chip lot was placed in a Waring Blendor bowl and ground in the Blendor for 30 seconds. The sample was removed from the bowl and placed in the Agtron F cup and Agtron color was read directly after standardizing the instrument at 30 with gray disk (Agtron 30).

RESULTS

The results are summarized in the following tables by variety, year, and grower for each of the attributes evaluated.

Four varieties (Katahdin, La Chipper, Ona and Superior) were used all five years; three varieties (Kennebec, Monona and Sebago) were used four years; three varieties (Arenac, Haig, and Snowflake) were used three years; five varieties (Cobbler, Lenape, Pennchip, Platte and Penobscot) were used two years; while, nineteen varieties (ND 4192-3, Fundy, Early Chippewa, Russet Sebago, Pungo, Plymouth, Avon, Red La Soda, Teton, WY 1122, Norgold Russet, Chippewa, Russet Burbank, Norchip, Norgold, Hi Plains, Red Pontiac, Alamo, and Peconic) were used only one year.

The summarized tabular information indicates three main variables among the data; that is, (1) varieties, (2) years, and (3) growers. The four attributes measured were percent yield, specific gravity, Coughlin Color and Agtron F color.

In general, yield values positively correlated with specific gravity while Coughlin Color scores were negatively correlated with Agtron F color values.

The best variety in terms of yield and specific gravity was Arenac while the poorest was Monona. On the other hand, Monona had the best color while Ona had the poorest color. Variations among the years showed the best tubers were grown in 1964 and 1966 with the poorest crop production in 1965. The 1967 and 1968 crops were in between these extremes.

Grower differences were quite large among the varieties but not among the years.

Some of the higher rating varieties are Arenac and Monona. The following varieties were of average quality for one or more attributes: Ona, Katahdin, Sebago, Kennebec, La Chipper, Superior and Haig. Snowflake was acceptable only before storage. The other varieties were not in the study long enough to make recommendations on their performance.

In conclusion, potato varieties for processing must be evaluated from more than one producer and over three or more years. Further, evaluation before and after storage is important if the product is to be processed, at least for chips, after storage. Specific gravity is a good indicator of yield and Agtron F color is a more reliable index than Coughlin Color.

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YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	P. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Katahdin	1964	1	1.0765	17	28.0	--	30.0	27.0	7	--	6	8	33.5	--	22	22
		2	1.066	18	31.3	--	27.0	28.0	7.5	--	6.5	7	23.8	--	19	22.5
		3	1.074	19	29.3	--	31.0	33.3	6.5	--	5	4	28	--	34.5	39
		4	1.0799	25	28.5	--	32.5	31.8	4.5	--	5	5.5	43	--	39	33.5
		5	1.0777	16	29.0	--	31.5	31.0	4.5	--	5	4.5	36	--	39.3	38.5
		6	1.0815	17	30.0	--	31.0	32.0	4	--	4	5	38	--	44	33
		7	1.069	28	31.0	--	29.5	--	7	--	8	8	17.5	--	19	18
		$\bar{x}$	1.0749	20	29.7	--	30.4	30.5	5.9	--	5.6	6	31.4	--	31	29.5
	1965	1	1.0599	20	25.0	25.0	26.8	--	4.5	7	6	--	40	28.3	33.5	--
		2	1.0685	13	28.8	29.5	29.0	28.5	7.5	7.5	7.5	6	24	24.3	21.5	30
		5	1.0613	10	28.3	29.3	27.5	26.8	8.5	8	8	7.5	19.3	14.5	17.5	23.3
		6	1.0697	12	29.5	30.0	30.5	30.3	6.5	6.5	6	6	27.5	24.5	30	24.5
		$\bar{x}$	1.0649	14	27.9	28.5	28.5	28.5	6.8	7.3	6.9	6.5	27.7	22.9	25.6	25.9
	1966	1	1.0678	20	27.5	29.8	28.0	--	7	6.5	6.5	--	42.5	34.5	32.5	--
		2	1.0808	12	31.0	30.5	30.5	--	6	6	5.5	--	36.2	34	35.5	
		5	1.081	14	32.0	32.5	31.0	--	6	6.5	5.5	--	37.8	33	37	--
		6	1.0818	19	30.5	32.5	32.0	--	6	7	6	--	39.5	33	31.5	--
		8	1.0713	23	26.8	28.8	29.0	--	5.5	6.5	6.5	--	48.5	26.5	30	--
		$\bar{x}$	1.0765	17	29.6	30.8	30.1	--	6.1	6.5	6.0	--	40.9	32.2	33.3	--
	1967	1	1.0753	14	32.0	28.0	30.0	--	6	6.5	6	--	32	35	27	--
		2	1.068	16	28.5	27.5	31.5	--	6.5	7	6.5	--	25.5	30	21	--
		5	1.0775	13	29.5	28.0	29.5	--	7	7	6.5	--	31.5	24.5	27.5	--
		6	1.0708	11	26.0	27.5	28	--	6	8	7.5	--	24	22	21	--
		9	1.0753	13	29.0	30.0	30.0	--	7	7.5	7.5	--	31.5	29	24	--
		$\bar{x}$	1.0734	14	29.0	28.2	29.8	--	6.5	7	7	--	29	28	24	--
	1968	1	1.061	24	26.5	26.5	26.5	--	6	7.5	7	--	30	15.5	19	--
		2	1.0685	17	26.5	26.0	31.0	--	4.5	5.5	5.5	--	34.5	26	28	--
		3	1.0685	19	28.5	25.8	28.0	--	6.3	6	5.5	--	30.5	28.5	29	--
		5	1.0785	13	29.0	28.5	30.0	--	6	6	5.5	--	33.5	28	30	--
		6	1.0745	12	30.5	28.5	27.0	--	6.5	6	6	--	28	23	26.5	--
		10	1.0685	17	29.0	26.0	29.0	--	6.8	7.5	7	--	24.5	16.5	20	--
		11	1.0645	25	25.0	25.5	27.0	--	8.5	8	8	--	15	12	12.5	--
		$\bar{x}$	1.0694	19	27.9	26.7	28.4	--	6.4	6.6	6.4	--	28	21.4	23.6	--
		$\bar{\bar{x}}$	1.0718	17	28.8	28.5	29.5	29.5	6.3	6.9	6.4	6.3	31.4	26.1	27.5	27.5

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
La Chipper	1964	1	1.078	23	30.5	--	30.0	27.0	5	--	5	5	37	--	25	31
		2	1.072	17	28.0	--	29.0	27.0	6	--	6	8	38	--	20	26
		3	1.0715	25	28.0	--	31.0	32.0	4	--	5	4	40	--	37	35
		4	1.080	26	26.0	--	31.5	33.5	5	--	5	5	44	--	35	31
		5	1.076	23	29.0	--	32.0	28.0	6	--	5	6	32	--	43	32.5
		7	1.074	24	30.0	--	30.0	29.5	8	--	8	9	25	--	14	17.5
		$\bar{x}$	1.0753	23	28.6	--	30.6	29.5	5.7	--	5.7	6.2	36	--	29	28.8
	1965	1	1.0658	22	26.8	28.0	26.0	--	4.5	7.5	4.5	--	33.3	24	35	--
		2	1.0662	15	27.0	28.0	27.8	27.5	6.5	6.5	7	6.5	31.3	27	21.5	36
		5	1.0697	17	28.3	29.5	29.3	28.0	6.5	6	6.5	5.5	27.5	25.5	27.3	36
		6	1.0744	18	28.5	30.3	30.5	31.5	6.5	6	6.5	6	27.8	28.8	27.5	30
		$\bar{x}$	1.069	18	27.7	29.0	28.4	29.0	6.0	6.8	6.1	6	30	26.3	27.8	25.5
	1966	1	1.0673	24	26.5	27.0	27.0	--	5.5	6	6	--	41.3	31.5	34	--
		2	1.0695	21	28.0	27.5	28.0	--	7	7	6.5	--	36.2	26	30	--
		5	1.0795	21	29.5	28.3	31.5	--	6	6.5	5.5	--	39.1	30.5	36.5	--
		6	1.0763	18	29.0	30.8	29.0	--	5.5	5.5	5	--	39.5	38	35	--
		8	1.0688	30	27.0	29.3	27.8	--	5.5	6	5.5	--	44.3	33.5	35.5	--
		$\bar{x}$	1.0723	23	28.0	28.6	28.7	--	5.9	6.2	5.7	--	40.1	31.9	34.2	--
	1967	1	1.0715	22	28.5	29.0	29.0	--	6	7	7	--	29	31	23	--
		2	1.068	15	27.0	27.0	28.0	--	6.5	7	7	--	27	31.5	20.5	--
		5	1.0808	16	28.5	31.5	30.0	--	7	7	6.5	--	28	33.5	30	--
		6	1.0718	13	26.0	25.5	27.5	--	7.5	7	7	--	23.5	26.5	24	--
		9	1.0728	13	28.0	28.5	28.5	--	7	7.5	6.5	--	23.5	23	25.5	--
		$\bar{x}$	1.073	16	27.5	28.0	28.5	--	7	7	7	--	26	29	24.5	--
	1968	1	1.0615	27	26.0	26.0	26.0	--	6.3	6	7	--	29.5	22	24	--
		2	1.0715	22	26.5	28	27.5	--	5.3	5.5	5.5	--	35	27.5	24	--
		3	1.066	24	26.5	27.0	26.5	--	5.5	6	6	--	32	27	23	--
		5	1.0775	16	28.5	28.0	29.0	--	5.5	5.5	5.8	--	37	30	30	--
		6	1.0735	17	26.5	27.0	29.5	--	6.3	5.5	5.5	--	34	26.5	29	--
		10	1.0665	28	27.5	26.0	28.0	--	6	7	6	--	28.5	19	23.5	--
		11	1.065	26	25.5	27.0	25.7	--	7.5	8	7	--	19.5	13.5	17.5	--
		$\bar{x}$	1.0688	23	26.7	27.0	28.4	--	6.1	6.2	6.1	--	30.8	23.6	24.4	--
		$\bar{\bar{x}}$	1.0717	20	27.7	28.0	28.9	29.3	6.1	6.6	6.1	6.1	32.6	27.7	28	27.2

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Ona	1964	2	1.0725	12	31.0	--	27.0	29.0	6	--	6	5	25	--	20	32
		3	1.080	22	31.0	--	30.0	35.0	5	--	7	4	29	--	16.5	37
		4	1.080	29	29.0	--	32.0	30.5	6	--	6	5	28.5	--	28	31.5
		5	1.076	17	31.0	--	33.0	31.5	6	--	4	4	32	--	38	36
		6	1.0775	21	31.0	--	29.5	33.0	3	--	5	5	38	--	36	32.5
		$\bar{x}$	1.0772	20	30.6	--	30.3	31.8	5.2	--	5.6	4.6	30.5	--	27.7	33.8
	1965	1	1.0642	16	31.0	27.0	28.0	--	5	7.5	7	--	35.3	19	23.5	--
		2	1.0693	17	28.5	30.8	29.0	28.8	8.5	8	7.5	7	19.8	19.5	15.5	25.3
		5	1.059	17	26.8	28.0	26.5	29.3	9.5	7.5	8.5	7.5	15	20	15.5	21
		6	1.0677	14	30.0	29.0	33.0	29.5	8.5	7.5	7	7	22.5	22	25.5	22
		$\bar{x}$	1.0651	16	29.1	28.7	29.1	29.2	7.9	7.6	7.5	7.2	23.2	20.1	20.0	22.8
	1966	2	1.0825	18	29.5	32.5	30.5	--	7	7	6.5	--	33.7	26.5	30	--
		5	1.0793	19	31.3	30.8	34.0	--	7.5	8	8	--	29.4	20	30.5	--
		6	1.087	18	33.5	34.0	30.5	--	7	8	7	--	34.5	21	27	--
		8	1.0788	32	28.3	29.5	32.0	--	6.5	7	7	--	46.9	31	32	--
		$\bar{x}$	1.0819	22	30.7	31.7	31.8	--	7	7.5	7.1	--	36.1	24.6	29.9	--
	1967	1	1.0793	16	33.0	30.5	34.0	--	7	7	7	--	26	27	19	--
		2	1.076	17	29.0	28.0	30.0	--	7.5	8.5	7.5	--	20	18	17	--
		5	1.073	15	28.5	28.0	30.0	--	8.5	7.5	7.5	--	16.5	21	18.5	--
		6	1.0705	21	27.5	27.0	28.5	--	8	9	8.5	--	15	14.5	12	--
		9	1.071	16	27.0	29.0	28.0	--	7	8	8	--	22	21.5	15	--
		$\bar{x}$	1.074	17	29.0	28.5	30.0	--	7.5	8	7.5	--	20	20	16	--
	1968	1	1.066	28	28.0	26.5	29.0	--	7.3	8.5	7.5	--	17.5	11	12	--
		2	1.0715	21	29.5	28.0	29.0	--	5.5	6.5	6	--	26.5	21	23.5	--
		3	1.0725	23	27.0	27.5	28.0	--	6.5	7	7	--	25.5	19.5	20	--
		5	1.083	21	29.5	29.0	31.0	--	6.5	6.5	6	--	28.5	24	22	--
		6	1.081	19	30.0	28.5	31.0	--	6.5	6	6.5	--	25	24	23	--
		10	1.072	20	27.0	27.5	27.0	--	7	6.5	7	--	23.5	19.5	22	--
		11	1.068	27	25.0	27.0	27.0	--	9	9.5	9	--	15	9	12	--
		$\bar{x}$	1.0734	22	28.0	27.7	28.9	--	6.9	7.2	7.0	--	23.1	18.3	19.2	--
		$\bar{x}$	1.0743	19	29.5	29.2	30.0	30.5	6.9	7.6	6.9	5.9	26.6	20.8	22.6	28.3

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Superior	1964	1	1.0775	20	29.0	--	28.0	30.0	6	--	6	7	32.5	--	16	23
		2	1.072	22	28.5	--	28.0	30.0	6	--	8	7	36.5	--	16	22
		3	1.075	18	28.0	--	28.0	30.0	6	--	5	5	29	--	35	33
		4	1.0775	21	29.0	--	28.0	28.0	5	--	8	6	37	--	23.5	26
		5	1.0725	24	30.0	--	30.5	29.0	8	--	4	7	30	--	42.5	34
		7	1.0725	16	28.0	--	30.0	32.0	8	--	8	10	27	--	10	12
		$\bar{x}$	1.0745	20	28.8	--	28.8	29.8	6.5	--	6.5	7.0	32	--	23.8	25
	1965	1	1.0652	26	27.0	25.8	26.3	--	6	7	5.5	--	34	28.5	34	--
		2	1.0683	15	28.0	29.3	28.5	26.8	6.5	6	6.5	6.5	28.8	24.5	25.5	26
		5	1.0687	20	27.5	29.0	27.3	27.8	9	7	7	7	16.3	26	20	28
		6	1.0743	22	28.0	29.5	30.3	30.5	6	6	6	6	31.5	29	31.5	27.5
		$\bar{x}$	1.0691	21	27.6	28.4	28.1	28.4	6.9	6.5	6.3	6.5	27.7	27	27.8	27.2
	1966	1	1.070	18	27.3	28.5	29.0	--	5.5	6	6	--	41.3	31.5	34	--
		2	1.0708	13	28.5	29.5	29.5	--	7	7	6.5	--	36.2	26	30	--
		5	1.0745	17	31.5	29.0	31.5	--	6	6.5	5.5	--	39.1	30.5	36.5	--
		6	1.0765	16	31.0	31.5	31.5	--	5.5	5.5	5	--	39.5	38	35	--
		8	1.0645	27	25.8	27.0	27.0	--	5.5	6	5.5	--	44.3	33.5	35.5	--
	1967	1	1.0725	17	29.0	28.5	29.0	--	7	7	7	--	26	28	22	--
		2	1.0718	15	29.0	28.0	30.5	--	7	7	7.5	--	28.5	26	16	--
		5	1.0765	18	28.0	26.5	28.0	--	6.5	7	7	--	28	29.5	22	--
		6	1.0738	14	27.5	28.0	27.0	--	7	7	7.5	--	25.5	23.5	16.5	--
		9	1.0745	13	29.0	28.0	31.0	--	7.0	7.5	7	--	23.5	21	22	--
		$\bar{x}$	1.0738	16	28.5	28.0	29.0	--	7	7	7	--	26	25.5	19.5	--
	1968	1	1.060	31	25.0	24.5	26.5	--	5.5	8	8	--	25	11.5	11	--
		2	1.077	21	28.0	27.0	31.0	--	5.5	6.5	6.5	--	33	24.5	29	--
		3	1.0695	19	28.0	27.0	27.0	--	5.5	5.5	6	--	31.5	23	25	--
		5	1.082	19	29.0	28.5	31.0	--	6	6.5	6	--	33.5	25	20	--
		6	1.073	20	28.0	27.0	29.5	--	5	6.5	5.5	--	36.5	21.5	23	--
		10	1.068	19	27.0	27.5	29.0	--	6.8	7	7	--	27	21.5	24	--
		11	1.0655	21	25.5	24.5	26.5	--	8	8	8	--	18	20.5	15.5	--
		$\bar{x}$	1.0707	21	27.2	26.6	28.6	--	6.0	6.9	6.7	--	29.2	21.1	21.1	--
		$\bar{x}$	1.0719	19	28.2	28.0	28.8	29.1	6.5	6.7	6.4	6.8	31	26.4	25.3	26.1

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Kennebec	1964	2	1.0775	13	30.0	--	29.0	31.0	4	--	4	7	34	--	30	25
		3	1.0765	18	30.0	--	29.0	31.0	5	--	7	4	34	--	31	33.5
		4	1.0755	21	25.0	--	29.0	28.5	5	--	5	6	44	--	39	36.5
		5	1.077	12	29.0	--	30.0	31.0	5	--	4	5	36	--	44	36
		6	1.0875	14	31.0	--	32.0	32.0	4	--	4	4	38	--	42	34
		$\bar{x}$	1.0788	15	29.0	--	29.8	30.7	4.6	--	4.8	5.2	37.2	--	37.2	33.0
	1965	1	1.065	17	26.9	27.0	28.0	--	5.5	6.5	4.5	--	39.5	29.5	40	--
		2	1.0719	12	28.5	30.0	30.3	29.0	6.5	6.5	7	6	24.5	31.5	28	36
		5	1.0617	15	28.0	26.0	26.8	27.0	8.5	7	6.5	6	18.5	21.5	22	28.5
		6	1.0679	11	30.5	28.3	30.0	29.0	7	6.5	6.5	6.5	24.5	24	28.5	24.5
		$\bar{x}$	1.0666	14	28.5	27.8	28.8	28.3	7.9	6.6	6.1	6.2	26.8	26.6	29.6	29.7
	1966	1	1.073	19	27.5	29.0	29.5	--	7	6.5	6.5	--	42.5	33.5	40	--
		2	1.0823	15	30.5	31.5	30.0	--	5.5	6.5	5.5	--	44.3	35	34	--
		5	1.0775	16	28.5	20.0	29.5	--	7	6.5	6	--	29.1	21	37.5	--
		6	1.0808	15	30.3	32.0	31.5	--	6.5	7	6.5	--	39	34	30.5	
		$\bar{x}$	1.0762	18	28.7	30.3	29.6	--	6.7	6.8	6.2	--	39.3	29.8	34	--
	1967	1	1.0775	17	31.0	27.5	29.5	--	6.5	6.5	6	--	30.5	32	29.5	--
		2	1.0728	14	28.5	26.5	30.0	--	6.5	7	7	--	26	23.5	25	--
		5	1.0723	12	29.5	29.5	28.5	--	7	7.5	6.5	--	28	28	23.5	--
		6	1.071	9	28.0	27.5	27.0	--	7	7	7	--	23	26	20	--
		9	1.0778	10	30.0	28.0	27.5	--	6.5	7	6	--	33.5	29	26.5	--
		$\bar{x}$	1.0743	12	29.0	27.5	28.5	--	6.5	7	6.5	--	28	27.5	25	--
		$\bar{\bar{x}}$	1.074	15	28.8	28.5	29.2	29.5	6.2	6.8	5.9	5.7	32.8	28	31.5	31.4

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Monona	1965	1	1.0647	20	26.5	25.8	26.8	--	4	6	4.5	--	45.8	28.8	43	--
		2	1.0617	15	28.0	29.0	28.3	27.5	6	5.5	5.5	5.5	27	30.5	33	37
		5	1.0614	12	28.3	29.3	26.8	28.5	6	5	6	5	27.5	36	32	39
		6	1.064	15	30.0	29.0	29.8	29.5	5.5	6	6	5.5	34.3	31	32.5	32
		$\bar{x}$	1.063	16	28.2	28.3	27.9	28.5	5.4	5.6	5.5	5.3	33.7	31.6	35.1	36
	1966	1	1.0623	15	24.0	27.5	28.5	--	6.5	6	5.5	--	44.2	37.9	35.5	--
		2	1.0733	15	29.0	33.0	29.5	--	6	6	5.5	--	43	35.5	37.5	--
		5	1.0718	16	30.5	28.5	31.0	--	4.5	5.5	5.5	--	42.4	21	35	--
		6	1.0748	17	31.0	30.5	28.5	--	6	5	5	--	37.5	39	36	--
		8	1.0643	26	26.0	28.0	28.5	--	6.5	5.5	6	--	47.8	32.5	37	--
		$\bar{x}$	1.0693	18	28.1	29.5	29.2	--	5.9	5.6	5.5	--	43.0	37.2	36.2	--
	1967	1	1.0655	23	27.5	25.0	29.5	--	6	6.5	6.5	--	31	32.5	28	--
		2	1.0675	17	27.0	27.5	27.5	--	5.5	5.5	6	--	31.5	32.2	24.5	--
		5	1.0753	16	27.5	28.0	29.0	--	5	5	5	--	39.5	40	30	--
		6	1.064	12	26.0	26.0	26.0	--	6	6	6	--	32	33.5	28.5	--
		9	1.0725	15	28.0	29.5	27.5	--	6.5	6.5	5	--	25.5	35	34.5	--
		$\bar{x}$	1.069	17	27.0	27.0	28.0	--	6	6	5.5	--	32	34.5	29	--
	1968	1	1.063	21	26.0	26.5	27.5	--	3.5	6.5	5	--	34.5	21	24.5	--
		2	1.072	24	26.5	27.0	30.0	--	4	5.5	4.5	--	39	29	23	--
		3	1.0655	21	27.5	26.0	27.5	--	5	4.5	5	--	33	30.5	30.5	--
		5	1.0735	19	29.5	29.0	29.0	--	5.5	5	5.5	--	30.5	28.5	29	--
		6	1.0725	12	28.0	27.5	27.5	--	6	5	5	--	31.5	28.5	30	--
		10	1.067	21	26.5	27.0	28.5	--	6	5	5	--	29.5	27.5	30.5	--
		11	1.060	25	26.0	32.5	27.0	--	6.8	6.5	6.5	--	22	21	22	--
		$\bar{x}$	1.0676	20	27.1	26.6	28.1	--	5.3	5.4	5.2	--	31.4	26.6	27.1	--
		$\bar{x}$	1.0672	18	27.6	27.9	28.3	28.5	5.7	5.7	5.4	5.3	35	32.5	31.9	36

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Sebago	1964	2	1.080	14	29.0	--	30.5	31.0	5	--	6	--	27.5	--	28	35
		3	1.0735	18	30.0	--	30.0	30.0	4	--	5	5	38	--	39	37.5
		4	1.080	24	30.0	--	31.0	30.0	4	--	6	6	44	--	42.5	35
		5	1.0715	16	30.0	--	24.0	34.0	5	--	5	5	40	--	45	39
		6	1.0825	17	31.0	--	32.0	32.5	4	--	5	5	38	--	42	36
		$\bar{x}$	1.0775	17	30.0	--	29.5	31.5	4.2	--	5.4	5.3	37.5	--	39.3	36.5
	1965	1	1.0585	21	27.8	26.0	25.0	--	6	7	6	--	33.8	23.5	29	--
		2	1.0702	13	30.5	29.5	30.0	30.0	7	7	7.5	6.5	28.8	26.5	20.5	31.3
		5	1.0595	17	26.3	28.0	26.3	28.0	7.5	8	8	7.5	22.8	13	16.8	26.8
		6	1.0669	17	31.0	29.5	30.8	31.3	6	7	6	6.5	27.8	24.5	26.8	25
		$\bar{x}$	1.0638	17	28.9	28.3	28.0	29.8	6.6	7.3	6.9	6.8	28.3	21.9	23.3	27.7
	1966	1	1.0658	21	23.5	29.5	28.0	--	7	6	5.5	--	44	32	39	--
		2	1.0863	18	30.0	33.0	32.0	--	5	5	4.5	--	38	36.5	39	--
		5	1.0803	16	31.0	29.8	33.0	--	6	6.5	7	--	34.6	35.5	33	--
		6	1.0853	17	30.0	33.0	36.5	--	6	6	5.5	--	38	31.5	34	--
		8	1.0728	26	27.3	31.3	29.8	--	6.5	6	5.5	--	46.9	37	34	--
		$\bar{x}$	1.0781	20	28.4	31.3	30.9	--	6.1	5.9	5.6	--	40.3	34.5	35.8	--
	1967	1	1.077	17	30.0	30.5	31.5	--	6.5	6.5	6.5	--	28.5	33	25	--
		2	1.0693	17	31.0	28.5	30.0	--	7	7	8	--	26	27.5	18	--
		5	1.0735	15	28.5	29.0	30.0	--	5.5	6	6.5	--	31.5	37	23.5	--
		6	1.0685	11	28.0	27.5	29.0	--	7.5	8	7.5	--	18.5	22.5	16	--
		9	1.0688	14	27.0	30.0	31.0	--	7	7.5	6	--	28	25.5	24	--
		$\bar{x}$	1.0714	15	29.0	29.0	30.0	--	6.5	7	7	--	26.5	29	21	--
		$\bar{x}$	1.0727	17	29.1	29.5	29.6	30.7	5.9	6.7	6.2	6.1	33.2	28.5	29.9	32.1

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

					% Yield				Coughlin Color				Agtron F			
Variety	Year	Grower	Sp. Gr.	Count	Before	1	10	20	Before	1	10	20	Before	1	10	20
Arenac	1964	1	1.0895	19	33.0	--	30.5	26.0	6	--	8	7	24.5	--	16	12
		2	1.091	21	33.0	--	32.5	28.5	5	--	5	7	39	--	28	29
		3	1.0825	19	32.0	--	30.0	24.5	6	--	6	4	35	--	25.5	25
		4	1.088	25	32.0	--	24.0	33.5	3	--	5	4	49	--	39.5	39
		5	1.0865	19	--	--	32.0	34.0	4	--	5	4	42	--	39.5	36
		7	1.0698	22	27.0	--	28.0	26.0	7	--	9	10	19	--	11	12
		$\bar{x}$	1.0846	21	31.4	--	31.2	30.4	5.2	--	6.3	6.0	36.4	--	28.3	27.2
	1965	1	1.0702	27	28.5	26.8	27.0	--	4.5	7.5	5	--	45	29.5	36.5	--
		2	1.0813	16	32.0	31.5	31.5	30.5	5.5	6.5	7	6	35.8	28.5	28	33.8
		5	1.0739	17	28.5	20.0	20.5	29.5	6.5	7	7	5.5	28.5	25	21	37.5
		6	1.0782	21	30.5	30.5	31.3	32.5	6.5	6.5	6	6	29	24	26.5	29.5
		$\bar{x}$	1.0759	20	29.9	29.7	30.1	30.8	5.8	6.9	6.3	5.8	34.6	26.8	28.0	33.6
	1966	1	1.078	23	29.5	31.0	28.0	--	7	6	6	--	44.5	31.5	31.5	--
		2	1.088	16	33.5	33.0	30.5	--	7	7	6	--	23.5	28	26	--
		5	1.0868	20	31.5	31.5	32.5	--	5	6.5	6.5	--	42.4	34.5	40	--
		6	1.092	21	34.0	33.5	30.0	--	6.5	7	7	--	37.5	29	37	--
		8	1.0775	31	28.0	30.0	29.5	--	6.5	6.5	7	--	47.6	32.5	32	--
		$\bar{x}$	1.0845	22	31.3	31.8	30.8	--	6.4	6.6	6.5	--	39.1	31.1	33.3	--
		$\bar{\bar{x}}$	1.0817	21	30.9	30.8	30.7	30.6	5.8	6.8	6.4	5.9	36.7	29	29.9	20.4

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

					% Yield				Coughlin Color				Agtron F			
Variety	Year	Grower	Sp. Gr.	Count	Before	1	10	20	Before	1	10	20	Before	1	10	20
Haig	1966	1	1.0645	23	25.8	29.5	28.0	--	7	7	6.5	--	38.9	28.9	27.5	--
		2	1.0675	22	30.0	29.5	29.5	--	6.5	6.5	6	--	38.7	35.1	30	--
		5	1.0738	17	30.5	30.3	30.3	--	6.5	6.5	6	--	36.5	31	35	--
		6	1.072	26	30.8	29.5	31.5	--	6	6.5	6	--	35.8	30.5	31	--
		8	1.0645	29	27.3	28.5	29.0	--	7	7	6.5	--	41.6	30.5	30.5	--
		$\bar{x}$	1.0685	24	28.9	29.5	29.7	--	6.6	6.7	6.2	--	38.3	31.2	30.8	--
	1967	1	1.0685	19	29.0	28.0	27.5	--	6	6	7	--	30.5	30.5	22.5	--
		2	1.0648	22	27.5	27.5	28.0	--	7	6.5	7	--	27	27.5	21	--
		5	1.0823	22	28.5	30.0	30.0	--	7.5	6	6.5	--	21	38.5	24	--
		6	1.072	15	28.5	28.0	28.5	--	7.5	7	7.5	--	21	28.5	21	--
		9	1.0718	19	27.0	26.5	30.0	--	7	8	7	--	29	24.5	23	--
		$\bar{x}$	1.0719	19	28.0	28.0	29.0	--	7	6.5	7.0	--	25.5	30	22	--
	1968	1	1.060	39	26.0	26.0	28.0	--	5.5	7.5	7	--	27.5	20	17	--
		2	1.071	29	26.0	27.0	30.0	--	4	6	6	--	31	20	20.5	--
		3	1.064	19	26.5	27.5	28.5	--	5.5	6.5	6.5	--	33	22.5	24.5	--
		5	1.0765	24	31.0	28.5	30.0	--	5.5	6	6.5	--	32	23.5	23	--
		6	1.0735	16	28.0	28.8	30.5	--	5.5	6.5	6	--	29.5	21	26.5	--
		10	1.0645	21	27.0	27.0	27.0	--	6.5	6.5	6	--	25	20	22.5	--
		11	1.058	32	24.0	24.5	26.5	--	8.3	8	8	--	16	16	16.5	--
		$\bar{x}$	1.0668	25	26.9	27.0	28.6	--	5.8	6.7	6.6	--	27.7	20.4	21.5	--
		$\bar{\bar{x}}$	1.0691	23	27.9	28.2	29.1	--	6.5	6.6	6.6	--	30.5	27.2	24.8	--

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Snowflake	1964	1	1.0785	25	30.0	--	28.0	31.0	5	--	7	7	35.5	--	12	21
		2	1.0645	22	28.5	--	27.0	28.0	5	--	8	10	39	--	10	13
		3	1.0675	22	30.0	--	30.0	29.5	6	--	7	8	20.5	--	27	24
		4	1.0775	21	30.0	--	32.5	30.5	5	--	7	4	40	--	33	29.5
		5	1.0707	17	31.0	--	30.0	30.0	6	--	6	7	22	--	30	32
		7	1.071	24	30.0	--	31.0	30.0	7	--	7	8	26.5	--	24	19
		$\bar{x}$	1.0716	22	29.9	--	29.8	29.8	5.7	--	7.0	7.3	30.6	--	22.7	23.1
	1965	1	1.0653	20	28.0	25.5	26.5	--	4.5	8	5	--	39.8	24.5	38.5	--
		2	1.0672	13	27.5	29.0	26.5	29.0	7.5	8	7	7	25.3	11.5	21	28
		5	1.0693	14	29.5	28.5	29.5	29.5	8	8	7.5	7	23.5	15.5	21	31.3
		6	1.0712	22	30.0	29.8	30.3	30.5	7	6	6	6.5	27	26.5	30	23.5
		$\bar{x}$	1.0683	17	28.8	28.2	28.2	29.7	6.8	7.5	6.4	6.8	28.9	20.8	27.6	20.7
	1966	1	1.0628	19	27.0	26.3	28.0	--	7	7	7	--	38.9	33.5	26.5	--
		2	1.073	15	28.0	31.0	28.5	--	6.5	6.5	6	--	42.3	30	29.5	--
		5	1.0733	21	29.0	30.0	32.0	--	7	7	6.5	--	35.2	35	36	--
		6	1.0735	22	29.0	30.5	29.5	--	6.5	6.5	6.5	--	36.5	27	30	--
		8	1.0653	26	26.0	25.8	30.0	--	6	7	7	--	42	25	24	--
		$\bar{x}$	1.0698	20	27.8	28.7	29.6	--	6.6	6.8	6.6	--	39	30.1	29.2	--
		$\bar{\bar{x}}$	1.0698	20	28.8	28.5	29.2	29.8	6.4	7.2	6.7	7.1	32.8	25.5	26.5	21.9

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Cobbler (Irish)	1964	1	1.0775	26	29.5	--	29.0	26.5	6	--	7	8	37	--	12	18
		2	1.065	20	28.0	--	28.0	27.0	6	--	10	9	34	--	8	12
		3	1.0655	17	26.0	--	31.0	30.5	7	--	7	6	21	--	18	30
		4	1.0775	21	29.0	--	28.0	29.0	4	--	6	5	39.5	--	28.5	31
		5	1.067	24	30.0	--	28.0	28.0	7	--	7	7	36	--	27	32
		7	1.073	24	29.0	--	32.0	30.0	8	--	8	10	13.5	--	13	16
		$\bar{x}$	1.0709	23	28.6	--	29.3	28.5	6.3	--	7.5	7.5	30.2	--	17.8	23.2
	1965	1	1.064	27	26.5	27.5	26.5	--	5	6.5	5	--	39.5	31	40	--
		2	1.067	14	27.0	29.5	27.8	30.5	7	7.5	8	7.5	27.8	24	20.5	27
		5	1.0697	21	29.5	29.0	28.0	28.0	7	7.5	7.5	6.5	27.3	23.5	22	29.8
		6	1.0755	22	30.5	29.5	29.8	31.0	7	6.5	6	6.5	28.5	28.5	28	30.5
		$\bar{x}$	1.0691	21	28.4	28.9	28	29.8	6.5	7	6.6	6.8	30.8	26.8	27.6	29.1
		$\bar{\bar{x}}$	1.070	22	28.5	28.9	28.7	29.2	6.4	7	7.1	7.2	30.5	26.8	22.7	26.2

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Lenape (B-5141-6)	1967	1	1.0975	21	34.0	33.5	34.0	--	6	6.5	6.5	--	31.5	33	26	--
		2	1.0895	16	32.0	31.5	32.0	--	7.5	6.5	7	--	26.5	36	24	--
		5	1.0928	16	31.0	32.0	33.5	--	6	6.5	7	--	28.5	36	22.5	--
		6	1.092	11	29.0	30.5	33.5	--	5	5.5	5.5	--	38.5	39.5	30.5	--
		9	1.0908	16	32.5	34.0	33.5	--	6.5	6.5	6.7	--	31.5	33.5	23	--
		$\bar{x}$	1.0925	16	31.5	32.0	33.0	--	6	6	6.5	--	31	35.5	25	--
	1968	1	1.0905	22	31.0	30.5	32.5	--	6.3	6.5	6.5	--	31.5	24.5	27	--
		2	1.094	26	29.5	30.5	33.0	--	5.8	6	6.5	--	31	24	25.5	--
		3	1.0925	21	31.5	31.5	32.5	--	6.3	6	5.5	--	32	26.5	25	--
		5	1.093	24	33.0	32.0	34.0	--	6.8	6	6	--	30	25	28.5	--
		6	1.0885	24	30.5	31.0	35.5	--	6	7	6	--	33	23.5	27	--
		10	1.092	19	30.5	31.5	31.0	--	6	6.5	5.5	--	29.5	23	25.5	--
		11	1.0895	25	30.5	30.5	31.0	--	7.3	7	6.5	--	23.5	23	24	--
		$\bar{x}$	1.0914	23	30.9	31.1	32.8	--	6.4	6.4	5.9	--	30.1	24.2	26.1	--
		$\bar{\bar{x}}$	1.092	19	31.2	31.6	32.9	--	6.2	6.2	6.2	--	30.6	29.9	25.6	--

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Pennchip	1964	2	1.0695	19	29.0	--	28.0	28.0	5	--	5	5	26.5	--	30	26
		3	1.070	23	29.0	--	33.5	33.0	4	--	4	4	33	--	38.5	38
		4	1.0793	38	29.0	--	33.5	29.5	5	--	5	6	38	--	37.5	32
		5	1.0685	17	29.0	--	34.0	28.5	4	--	5	7	35	--	39	34
		6	1.076	18	30.0	--	31.5	32.0	5	--	6	6	35.5	--	38	30
		$\bar{x}$	1.0727	23	29.2	--	32.1	30.2	4.6	--	5	5.6	33.6	--	36.6	32
	1965	1	1.0689	26	28.3	28.5	29.0	29.0	4.5	6.5	6	6	29.5	29	29	29
		2	1.0599	15	28.3	30.3	28.3	29.5	7	6.5	8	5.5	24	25.5	19	31.5
		5	1.0575	15	26.8	27.5	28.8	29.5	7.5	6.5	7.5	6	26.8	25.5	23.5	32.8
		6	1.0606	16	28.0	28.0	27.8	30.5	7	6.5	6.5	6.5	26	25.5	27.5	24.3
		$\bar{x}$	1.0617	18	27.9	28.5	28.5	29.6	6.5	6.5	7.0	6.0	29.1	26.4	24.8	29.4
		$\bar{\bar{x}}$	1.0672	21	28.6	28.5	30.3	29.9	5.6	6.5	6	5.8	31.4	26.4	30.7	30.7

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Platte	1967	1	1.062	22	30.0	26.5	28.0	--	6.5	6.5	7	--	30.5	30	24	--
		2	1.0628	14	27.0	27.0	27.5	--	6.5	7	7.5	--	23	32	19	--
		5	1.0718	17	27.5	26.5	28.0	--	6.5	6.5	7	--	31	34.5	21.5	--
		6	1.0653	14	24.5	26.0	27.5	--	7	7.5	7.5	--	22	27	14	--
		9	1.0638	17	27.5	26.0	27.0	--	7	7	7.5	--	20	25	20	--
		$\bar{x}$	1.0651	16	27.0	26.0	27.5	--	6.5	7	7	--	25	29.5	19.5	--
	1968	1	1.060	26	26.0	26.0	27.5	--	5.5	7	6.5	--	28.5	21	17.5	--
		2	1.0685	21	26.5	26.5	27.0	--	5.3	6	5	--	33	24.5	24.5	--
		3	1.060	26	23.5	25.0	25.5	--	6.3	6.5	6	--	26.5	21.5	23.5	--
		5	1.0715	24	28.0	27.0	29.0	--	6	5	5	--	32.5	26	25.5	--
		6	1.0635	18	24.5	25.0	29.0	--	5.5	6.5	5.5	--	27.5	16	27	--
		10	1.0645	18	26.5	27.0	29.5	--	6.8	7	6	--	29.5	21	23	--
		11	1.055	31	25.0	24.5	25.0	--	7.8	7.5	7.5	--	17.5	16	12	--
		$\bar{x}$	1.0633	23	25.7	25.8	27.5	--	6.2	6.5	5.9	--	27.9	20.9	21.9	--
		$\bar{\bar{x}}$	1.0642	20	26.4	25.9	27.5	--	6.4	6.8	6.5	--	26.5	25.2	20.7	--

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Penobscot	1966	2	1.0858	15	32.5	34.5	28.5	--	5.5	5.5	6	--	40.2	29.5	29	--
		5	1.085	24	32.0	31.8	32.5	--	6.5	6.5	6.5	--	31.4	32.5	29	--
		6	1.0905	18	32.5	35.5	31.0	--	6.5	7	6	--	33	30	28	--
		8	1.0845	26	30.0	29.3	31.5	--	5.5	6.5	6.5	--	49.3	28	32	--
		$\bar{x}$	1.0865	21	31.8	32.8	30.9	--	6.0	6.4	6.3	--	38.5	30	39.5	--
	1968	1	1.083	21	30.5	29.0	31.5	--	6.5	8.5	7.5	--	27.5	11.5	20.5	--
		2	1.090	18	31.5	30.5	31.5	--	5.5	6.5	6	--	32.5	21	25.5	--
		3	1.0835	19	29.0	30.5	31.0	--	6.8	6.5	6.5	--	26.5	19	22	--
		5	1.093	22	31.0	31.3	34.0	--	6.5	6.5	7	--	28.5	21	23.5	--
		6	1.094	16	33.5	30.0	32.0	--	6	6	6	--	26.5	20.5	26	--
		10	1.0815	18	28.0	28.0	29.0	--	6.5	7.5	6.5	--	25.5	17.5	22.5	--
		11	1.0825	25	29.0	29.5	30.5	--	8.8	9	9	--	11	10	11	--
		$\bar{x}$	1.0868	20	31.1	29.8	31.4	--	6.7	7.2	6.9	--	25.4	17.2	21.6	--
		$\bar{\bar{x}}$	1.0867	20	31.5	31.3	31.2	--	6.4	6.8	6.6	--	32.0	20.1	25.6	--

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
ND 4192-3	1964	1	1.085	20	30	--	30	32	10	--	8	9	14.5	--	18	16
		2	1.0695	17	26	--	28	27	7	--	10	8	22	--	8	12
		3	1.0685	17	27	--	28.5	28.5	7	--	7	9	14	--	15	15
		4	1.068	30	26	--	27	29.5	6	--	6	6	32	--	29	25
		5	1.0725	16	30	--	31	32	6	--	6	8	27	--	33	24
		7	1.0765	16	30	--	33	27	7	--	7	8	26.5	--	23	19
Fundy	1964	1	1.0815	20	30	--	30	29	8	--	7	9	26	--	14	14
		2	1.0705	18	29	--	29	27	7	--	8	8	22	--	11	21
		3	1.072	19	30	--	30.5	31	9	--	7	8	19	--	23	17
		4	1.0745	27	29	--	31	34	6	--	7	6	31	--	31	20.5
		5	1.0723	22	30	--	31.5	30	7	--	7	8	24	--	22	22
		7	1.0665	17	28	--	29	29	8	--	7	10	21	--	17	16
		$\bar{x}$	1.0729	20	29.3	--	30.2	30	7.5	--	7.2	8.2	23.8	--	19.7	18.4
Early Chippewa	1964	1	1.076	19	28	--	28	28	6	--	6	6	29.3	--	20	23
		2	1.0665	23	26	--	28	28	5	--	7	7	38	--	11	23
		3	1.0675	18	28	--	31	32	6	--	5	5	29.5	--	37	29
		4	1.072	24	30	--	33	33	4	--	6	4	42	--	34	31
		5	1.0734	18	29	--	32.5	29.5	6	--	5	5	36	--	42	38
		7	1.0725	20	28	--	30	31.5	8	--	8	9	19	--	15	22.5
		$\bar{x}$	1.0713	20	28.2	--	30.4	30.3	5.8	--	6.2	6.0	32.3	--	36.5	27.8

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

					% Yield				Coughlin Color				Agtron F			
Variety	Year	Grower	Sp. Gr.	Count	Before	1	10	20	Before	1	10	20	Before	1	10	20
Russet Sebago	1964	2	1.077	15	28.5	--	29	30	4	--	6	5	42.5	--	27	38
		3	1.0735	23	30	--	29	33	6	--	5	5	31	--	40	43
		4	1.075	21	28	--	31	30.5	4	--	5	6	41.5	--	37.5	31
		5	1.075	14	32	--	36	32	5	--	4	5	34	--	37.5	37
		6	1.0805	19	31	--	32	30.5	3	--	5	5	40	--	44	35
		$\bar{x}$	1.0762	18	29.9	--	31.4	31.2	4.4	--	5.0	5.2	37.8	--	37.2	26.8
Pungo	1964	1	1.0905	19	31.6	--	31	28	7	--	8	7	34.5	--	12	12
		2	1.075	19	32	--	28	28	4	--	7	5	40	--	14	16.5
		3	1.0725	19	31	--	34	25	8	--	7	6	20	--	24	28
		7	1.0653	19	29	--	31	28.5	6	--	7	8	22.5	--	25	19
		$\bar{x}$	1.0758	18	30.9	--	31	27.4	6.3	--	7.3	6.5	29.3	--	18.8	18.9
Plymouth	1964	1	1.0855	17	28.5	--	33	32	7	--	6	--	25	--	21	--
		2	1.076	15	29	--	30	31	6	--	6	8	32.5	--	18	16
		3	1.0775	18	30	--	30.5	34	9	--	7	6	25.5	--	29	32
		4	1.0765	23	29	--	33	30	6	--	5	4	34	--	35	29
		5	1.077	18	26	--	31	30	6	--	5	6	27	--	31.5	28
		7	1.0753	24	29	--	29	30	7	--	6	7	21	--	25.5	31
		$\bar{x}$	1.078	19	28.6	--	31.1	31.2	6.8	--	5.8	6.2	27.5	--	26.7	22.7
Avon	1964	1	1.0855	20	30	--	30	30.5	3	--	4	5	45	--	32	29
		2	1.0775	17	29	--	32	28	4	--	5	7	39	--	30	30
		3	1.079	18	28	--	30	32	4	--	4	4	40	--	42.5	39.5
		4	1.0793	30	26	--	32	30	3	--	5	5	48	--	43	33
		5	1.0765	17	29	--	33	27	4	--	4	5	32	--	44	39.5
		7	1.0675	24	28	--	31.5	31	9	--	9	9	12.5	--	17	13.5
		$\bar{x}$	1.0776	21	28.3	--	31.4	29.8	4.5	--	5.2	5.8	36.1	--	34.8	30.7

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Red La Soda	1967	1	1.0728	18	29.5	28.5	29	--	7.5	7.5	7.5	--	26.5	25	19.5	--
		2	1.0643	15	27	25.5	27	--	9	9.5	9.5	--	16.5	11.5	12.5	--
		5	1.0773	15	27.5	27	28.5	--	9	8.5	8	--	18.5	18.5	19	--
		6	1.0708	14	28	27	27	--	8.5	8	8	--	13.5	12.5	12	--
		9	1.0725	10	24.5	26.5	29	--	8	8.5	7.5	--	19	16	18.5	--
		$\bar{x}$	1.0715	14	27	27	28	--	8	8	8	--	19	16.5	16	--
Teton	1964	2	1.067	13	26	--	27	28	7	--	7	7	19.5	--	18	20
		3	1.073	17	30	--	26	25	5	--	5	5	34	--	36	32.5
		4	1.0725	29	28	--	30	26.5	5	--	6	6	38	--	34.5	33.5
		5	1.074	18	29	--	33	29	5	--	6	5	34	--	38	34.5
		6	1.076	20	30	--	30	30	6	--	8	6	30	--	3-	31
		7	1.0715	28	30	--	31	26.5	5	--	7	8	34.5	--	24.5	22
		$\bar{x}$	1.0723	21	28.8	--	29.5	27.5	5.5	--	6.5	6.2	31.7	--	30.2	28.9
WY 1122	1964	3	1.073	16	32	--	29	32	6	--	6	4	24	--	32.5	36
		4	1.0755	18	30	--	32	29	5	--	5	5	40	--	37.5	36
		5	1.0685	12	28	--	31	29.5	7	--	5.5	8	30	--	30	26
		6	1.071	14	30	--	30	31	5	--	6	8	32	--	27.5	22
		7	1.080	25	32	--	31	28	6	--	6	9	31	--	28	21
		$\bar{x}$	1.0736	17	30.4	--	30.6	29.9	5.8	--	5.7	6.8	31.4	--	31.1	28.2

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Norgold Russet	1965	1	1.0632	23	27	25	26	--	7.5	8.5	8.5	--	24.5	11.5	20.5	--
		2	1.0657	15	26.3	28	27.2	28.3	8.5	9.5	9	8.5	18.5	13	12	16.5
		5	1.0649	19	26.8	27.8	27	28.5	8.5	7.5	9.5	8	16.8	13.8	10.5	17.8
		6	1.0712	21	28	28.8	30	30.5	9	9	9	8.5	19.5	18.5	17.5	14
		$\bar{x}$	1.0663	20	27	27.4	27.6	29.1	8.4	8.6	9	8.3	19.8	14.2	15.1	16.1
Chippewa	1965	1	1.0613	18	26	26.5	27.3	--	5.5	6.5	5	--	34.8	29	40	--
		2	1.0637	11	28.8	26.8	26	27.5	8	7	7	6	21.3	21.5	19.5	31.8
		5	1.0622	18	26.5	28	28	27.5	7	7	6.5	6.5	25.8	19	24.5	28.8
		6	1.0633	18	29.5	29.5	30.3	29.8	6.5	7	6	7	27	24	28.5	23.5
		$\bar{x}$	1.0626	17	27.7	27.7	27.9	28.3	6.8	6.9	6.1	6.5	27.2	23.4	28.1	28.0
Russet Burbank	1965	1	1.064	20	27.8	27.5	27	--	6.5	8	7.5	--	31	20	22.5	--
		2	1.077	16	29.3	32.5	30	31	7	7	7.5	6.5	25.3	25	19.5	31.5
		5	1.0597	21	28.5	27.8	28.8	26.3	8	8.5	8.5	7.5	22	15.5	15.5	25
		6	1.0697	22	29.5	27.8	29.3	31	8.5	8.5	9	7	19	18.5	16	24.5
		$\bar{x}$	1.0676	20	28.8	28.9	28.8	29.4	7.5	8	8.1	7	24.3	19.8	18.4	27

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

Variety	Year	Grower	Sp. Gr.	Count	% Yield				Coughlin Color				Agtron F			
					Before	1	10	20	Before	1	10	20	Before	1	10	20
Norchip	1968	1	1.0715	28	28	28	30.5	--	5.8	7	6.5	--	29	20.5	24	--
		2	1.079	25	28.5	28.5	29.5	--	4.5	6.5	6	--	36	19	30.5	--
		3	1.0755	26	28	28	30.5	--	5	5.5	5.5	--	34	23.5	21	--
		5	1.085	22	35.5	31	30	--	5.8	5.5	5.5	--	30.5	29	28.5	--
		6	1.0815	17	29.5	30.5	30.5	--	5.8	6	5.5	--	31	25.5	27	--
		10	1.080	21	29.5	29.5	30.5	--	6.5	6	6	--	29.5	23	26.5	--
		11	1.0755	30	27	28.5	29	--	7.3	6	6.5	--	20.5	22	25	--
		$\bar{x}$	1.0783	24	29.4	29.1	30.1	--	5.8	6.1	5.9	--	30.1	23.2	26.1	--
Norgold	1966	1	1.0668	25	25.5	28.5	27.3	--	8	8	7.5	--	23.5	16	20	--
		2	1.0738	17	30	30	29.5	--	8.5	8	8	--	20.4	15	16.5	--
		5	1.0683	20	30.5	28.5	30	--	7.5	8	8	--	23.5	13.5	15.5	--
		6	1.076	24	27.5	30	30.5	--	8	8.5	8	--	22.3	18.8	14	--
		8	1.0628	27	25.8	27.3	27	--	8	8	8	--	23.1	13	14	--
		$\bar{x}$	1.0695	22	27.9	28.9	28.9	--	8	8.1	7.9	--	22.6	15.3	16	--
Hi Plains	1967	1	1.0795	21	29	28	31.5	--	7	6.5	6	--	29.5	33	30.5	--
		2	1.076	15	28	30	32.5	--	7	7.5	7.5	--	24.5	31	19.5	--
		5	1.0863	15	31	30	30	--	6.5	7	7	--	31	29	20	--
		6	1.0788	15	27.5	28.5	30	--	7	8	7	--	26	21	19	--
		9	1.081	13	29.5	29.5	31	--	7	7.5	7	--	28	22	27.5	--
		$\bar{x}$	1.0803	16	29	29	31	--	7	7	7	--	28	27	23	--

YIELD AND QUALITY EVALUATION OF POTATO VARIETIES (CULTIVARS) BY YEAR AND GROWER

					% Yield				Coughlin Color				Agtron F			
Variety	Year	Grower	Sp. Gr.	Count	Before	1	10	20	Before	1	10	20	Before	1	10	20
Red Pontiac	1967	1	1.0735	12	29.5	28.5	30	--	8	8.5	8.5	--	19	16.5	16	--
		2	1.0643	15	27.5	26	27	--	8	8.5	8	--	15	14.5	11.5	--
		5	1.0683	10	26	27	27.5	--	8	8.5	8	--	21	16	15.5	--
		6	1.0583	10	25.5	27.5	27	--	9.5	10	9	--	9	7.5	11.5	--
		9	1.0603	11	26.5	25.5	27.5	--	9	9.5	9.5	--	10.5	10	8.5	--
		$\bar{x}$	1.065	11	27	27	28	--	8.5	9	8.5	--	15	13	12.5	--
Alamo	1968	1	1.057	23	23	24.5	26	--	7.3	9	8.5	--	18	10	11.5	--
		2	1.0635	20	25	25	26.5	--	5.5	8	7.8	--	29.5	12.5	12.5	--
		3	1.0625	17	25	24.5	27	--	7	8.5	8	--	21	12.5	16	--
		5	1.072	20	29.5	27.5	28	--	6	6.5	6.5	--	31	19	18	--
		6	1.070	17	26.5	26	29.5	--	6.3	8	7	--	27	12.5	21	--
		10	1.069	18	26	25.5	26.5	--	7.3	7.5	8	--	20.5	19.5	12.5	--
		11	1.0595	30	24	23.5	25	--	8.3	8.5	8.5	--	12.5	11	12	--
		$\bar{x}$	1.0648	21	25.6	25.2	26.9	--	6.8	8	7.8	--	22.8	13.9	14.8	--
Peconic	1968	1	1.077	25	28	27.5	30.5	--	5	5	5.5	--	33	22	23	--
		2	1.0825	27	28.5	28.5	30	--	6	5.5	5.5	--	30.5	28	28	--
		3	1.079	24	28	28	29	--	6.3	6	5.5	--	29	24.5	29.5	--
		5	1.0945	18	31	31	31.5	--	5.8	6.5	5	--	28	30	31.5	--
		6	1.0825	21	30.5	29	30.5	--	6.3	5.5	6	--	27.5	24.5	25	--
		10	1.076	21	27	29	31.5	--	5.8	6	6	--	31.5	26	29	--
		11	1.075	31	26.5	27.5	28.9	--	7.5	6.5	6	--	19	19.5	23.5	--
		$\bar{x}$	1.0809	24	28.5	28.6	30.2	--	6.1	5.9	5.6	--	28.4	24.9	27.1	--

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The State Is the Campus for Agricultural Research and Development

Ohio's major soil types and climatic conditions are represented at the Research Center's 12 locations. Thus, Center scientists can make field tests under conditions similar to those encountered by Ohio farmers.

Research is conducted by 13 departments on more than 6200 acres at Center headquarters in Wooster, ten branches, and The Ohio State University.

Center Headquarters, Wooster, Wayne County: 1953 acres

Eastern Ohio Resource Development Center, Caldwell, Noble County: 2053 acres

Jackson Branch, Jackson, Jackson County: 344 acres

Mahoning County Farm, Canfield: 275 acres

Muck Crops Branch, Willard, Huron County: 15 acres

North Central Branch, Vickery, Erie County: 335 acres

Northwestern Branch, Hoytville, Wood County: 247 acres

Southeastern Branch, Carpenter, Meigs County: 330 acres

Southern Branch, Ripley, Brown County: 275 acres

Vegetable Crops Branch, Marietta, Washington County: 20 acres

Western Branch, South Charleston, Clark County: 428 acres